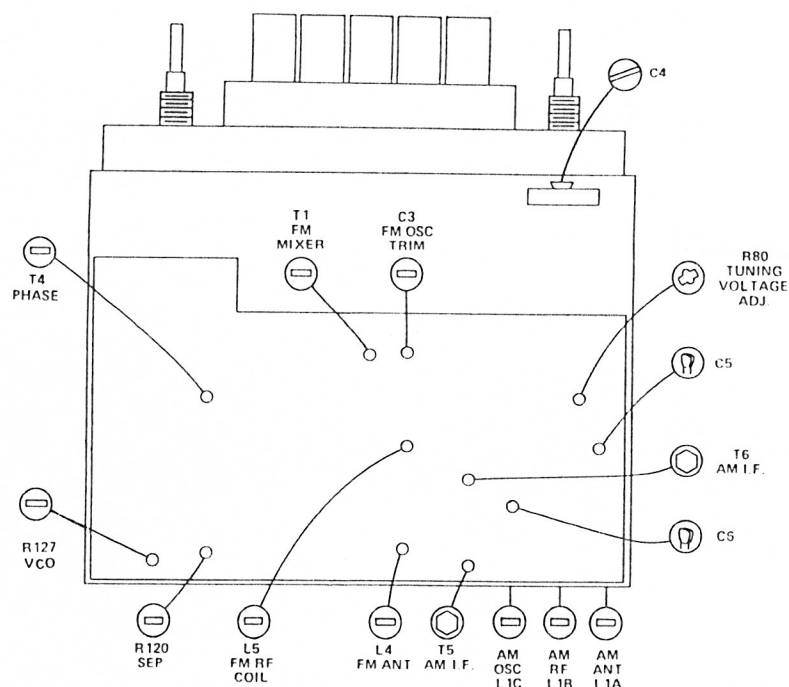




Date June 1976
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ALIGNMENT

60HFMT3



TURN VOLUME CONTROL UP. CONNECT AC VOLTMETER ACROSS SPEAKER LEADS. KEEP GENERATOR SIGNAL LOW TO MINIMIZE AGC ACTION.

AM ALIGNMENT PROCEDURE

STEP	GEN. FREQ. (MODULATED)	GENERATOR COUPLING	TUNER SETTING	ADJUST FOR PEAK
1	262 KHz	THRU .1 MFD TO ANT. SOCKET	HI-END STOP	T5, T6 TOP & BOTTOM
2	MEASURE DEPTH OF A.M. OSC. CORE: SHOULD BE 1 3/8" (3.5CM)			
3	1615 KHz	THRU 82 PF TO ANT. SOCKET	HI-END STOP	OSCILLATOR TRIMMER C6
4	1400 KHz	THRU 82 PF TO ANT. SOCKET	1400	ANTENNA & RF TRIMMERS C4, C5
5	600 KHz	THRU 82 PF TO ANT. SOCKET	600	ANTENNA & RF CORES: L1A, L1B

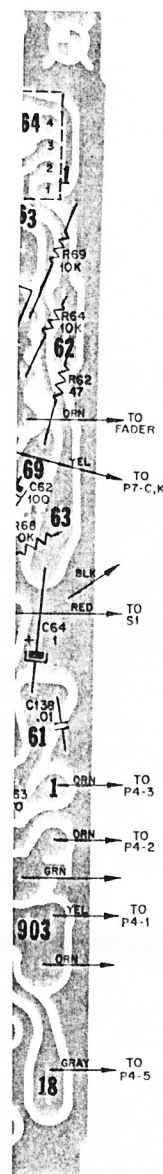
FM ALIGNMENT PROCEDURE

IMPORTANT: FIRST MAKE CERTAIN A. M. IS OPERATING PROPERLY; THE A. M. OSCILLATOR CONTROLS FM TUNING.

1	—	—	HI-END STOP	ADJUST TUNING VOLTAGE POT TO OBTAIN 7.3 VOLTS AT ICDA PIN 9. REPLACE BOTTOM COVER.
2	108 MHz	ANT. SOCKET	108	OSC. & RF TRIMMERS
3	88 MHz	ANT. SOCKET	88	OSC., RF & ANT. COILS. IF RF COIL DOES NOT PEAK, ADJ. RF TRIMMER UNTIL IT DOES. THEN RE-PEAK OSC. TRIMMER & COIL.
4	99 MHz	ANT. SOCKET	99	MIXER TRANSFORMER PHASE TRANSFORMER

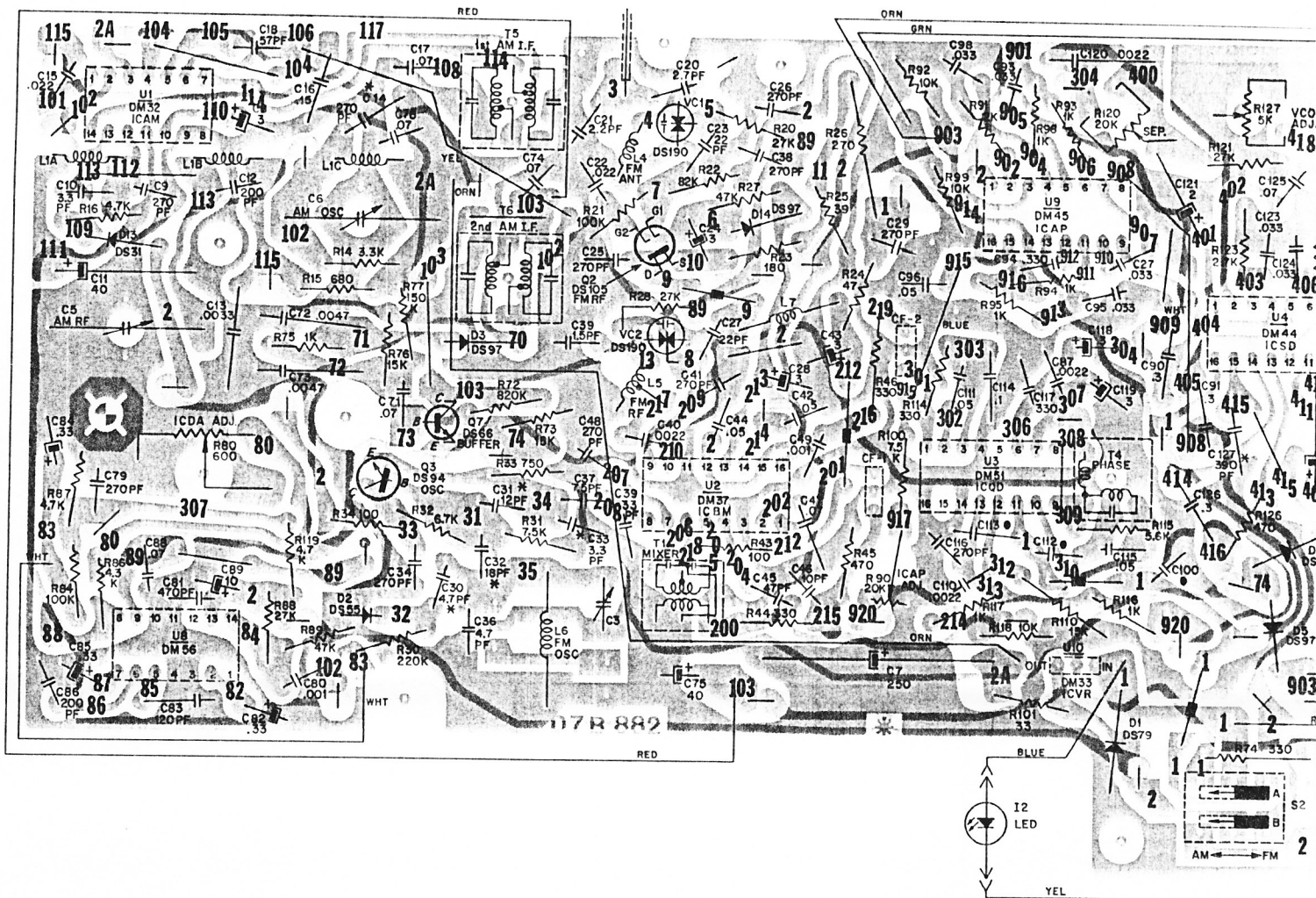
STEREO ALIGNMENT PROCEDURE

1	WITH WEAK STEREO SIGNAL, ADJUST VCO POT FOR STEREO LIGHT.			
2	WITH STRONG STEREO SIGNAL, ADJUST VCO AND SEPARATION FOR MAXIMUM SEPARATION.			



SERVICE AIDS

60HFM T3



MAIN BOARD
(Copper View)

U1
DM-32
ICAM

PIN	VOLTAGE	
	FM	AM
1	4.3	4.4
2	6.8	7
3	6.9	7
4	4.3	4.4
5	0.25	0.19
6	.16	11.7
7	.68	.68
8	0	0
9	0	0
10	.75	.66
11	.75	.66
12	.75	.66
13	.39	4.5
14	7.0	7.0

U2
DM-37
ICBM

PIN	VOLTAGE
1	1.9
2	1.9
3	0
4	1.1
5	12.3
6	12.3
7	3.3
8	3.3
9	1.7
10	1.7
11	0
12	7.7
13	7.6
14	0
15	7.7
16	4.5

U3
DM-51
ICQD

PIN	VOLTAGE
1	1.9
2	1.9
3	1.9
4	0
5	0
6	5.6
7	3.8
8	5.3
9	5.3
10	5.3
11	13.8
12	3.5
13	0.2
14	0
15	4.6
16	0

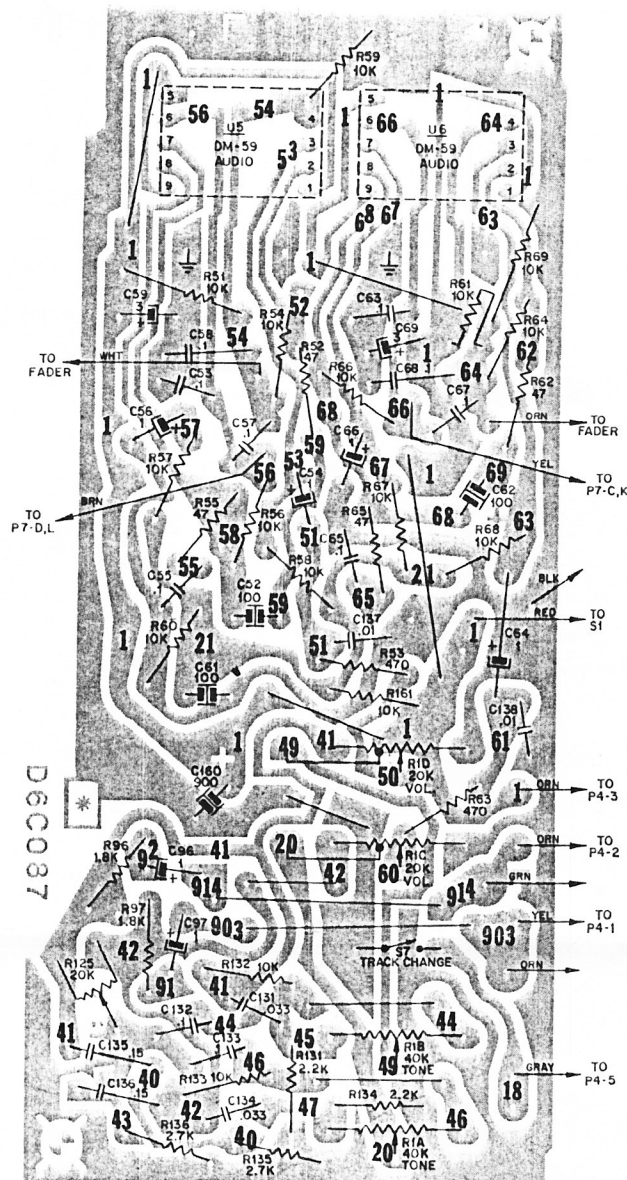
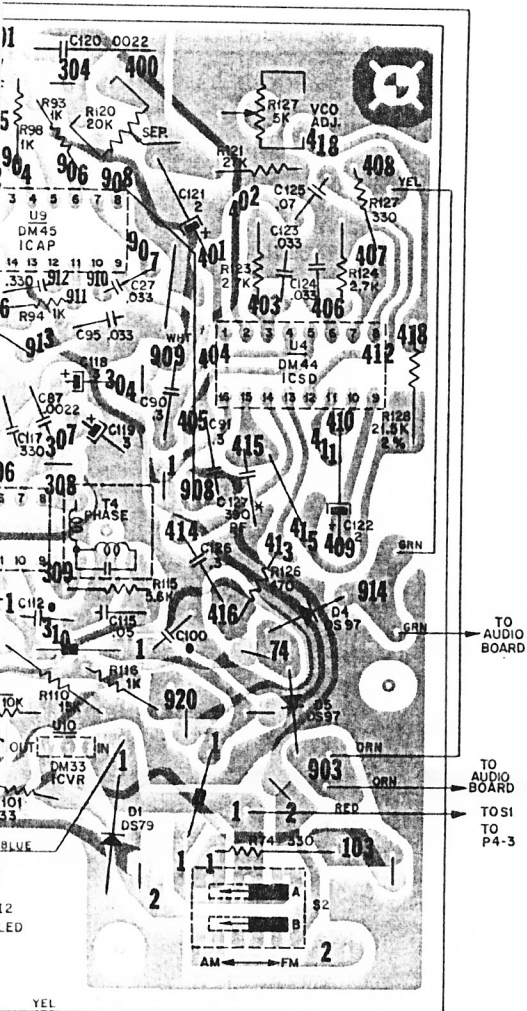
U4
DM-44
ICSD

PIN	VOLTAGE
1	2.2
2	5.3
3	3.1
4	2.3
5	2.2
6	3.0
7	12.4
8	0
9	1.8
10	1.8
11	1.6
12	1.8
13	1.8
14	1.8
15	2.8
16	13.9

U5 & U6
DM-59
ICBA

PIN	VOLTAGE
1	14
2	7
3	7
4	7
5	14
6	7
7	7
8	7
9	14

* STRONG SIGNAL IN



AUDIO BOARD
(Copper View)

U5 & U6
DM-59
ICBA

PIN	VOLTAGE
1	14
2	7
3	7
4	7
5	14
6	7
7	7
8	7
9	14

U8
DM-56
ICDA

PIN	VOLTAGE	
	108 MHz	88 MHz
1	0	0
2	3.5	3.5
3	0	0
4	0	0
5	0.4	0.8
6	2.3	2.3
7	4.6	2.2
8	1.6	1.6
9	7.3	1.7
10	0	0
11	0	0
12	5.4	5.4
13	7.7	7.7
14	4.7	4.7

U9
DM-45
ICAP

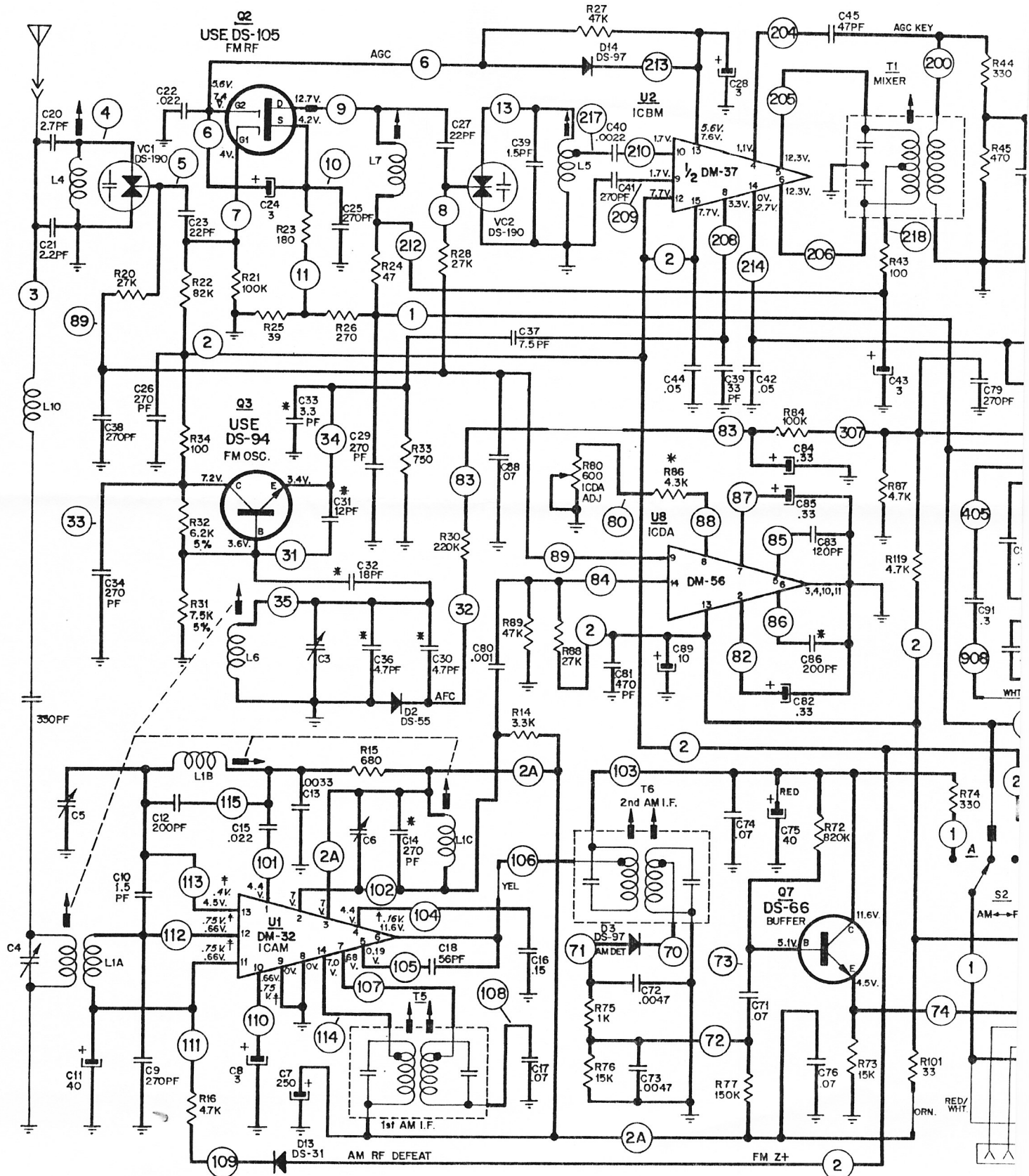
PIN	VOLTAGE
1	8.4
2	.8
3	4.4
4	2.8
5	2.2
6	2.8
7	3.5
8	4.2
9	4.2
10	3.5
11	2.8
12	2
13	2.8
14	4.2
15	.1
16	0

*2

UNLESS OTHERWISE NOTED:

ALL CAPACITORS ARE SHOWN IN MFD AND
ARE 75 VOLTS OR HIGHER EXCEPT ELECTRO-
LYTICS AND THOSE NOTED BY AN *

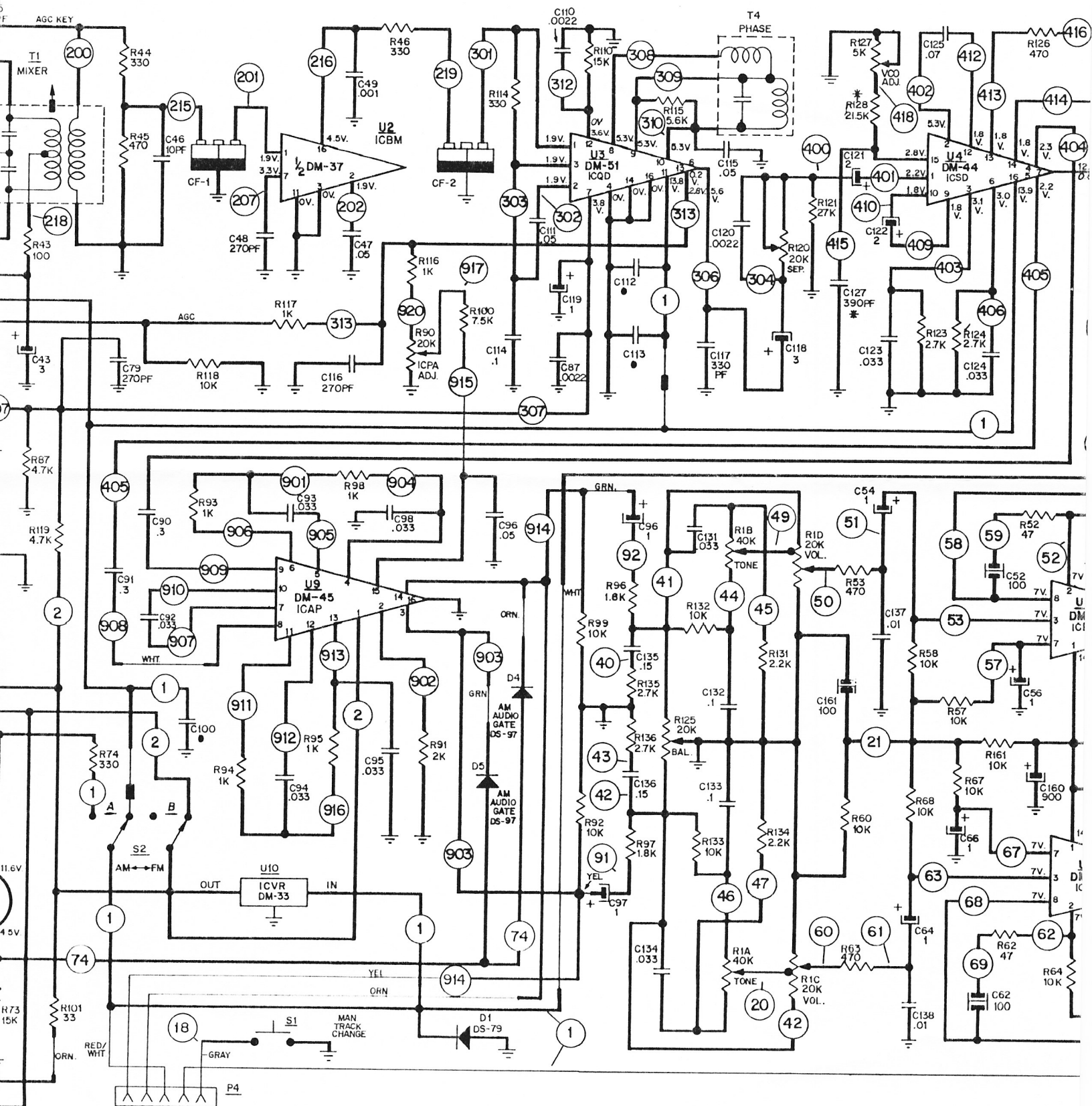
VOLTAGES MEASURED WITH A VTVM
NO SIGNAL AND 14 VOLTS APPLIED
RADIO.



CAUTION

GROUND PROBE BEFORE MAKING MEASUREMENTS ON IC. ALSO, DO NOT SHORT IC PINS TOGETHER OR TO GROUND OR IC MAY BE DESTROYED.

VEGA, ASTRE, M
STARFIRE & S

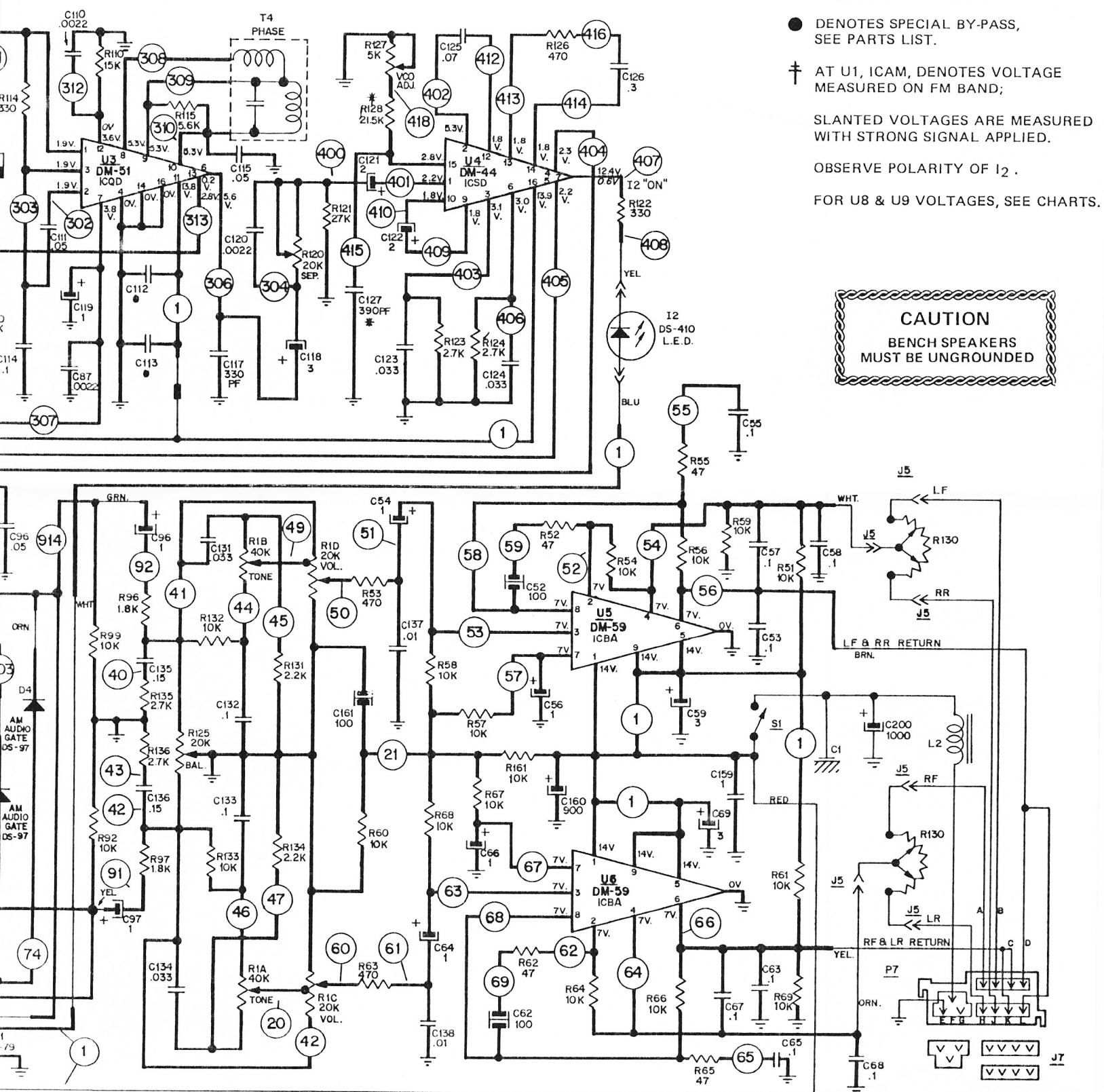


UTION

BEFORE MAKING
ON IC. ALSO, DO
IS TOGETHER OR
MAY BE DESTROYED.

VEGA, ASTRE, MONZA,
STARFIRE & SKYHAWK 60HFMT3

SCHEMATIC



PARTS LIST

ILLUS. NO.	SERVICE NO.	DESCRIPTION	ILLUS. NO.	SERVICE NO.	DESCRIPTION
SEMICONDUCTORS					
D1.....	DS-79	DIODE, SPIKE SUPPRESSION	C36.....	7897765	4.7 PF, 100V, N150 TUBULAR CERAMIC
D2.....	DS-55	DIODE, AFC	C43.....	7936359	3 MFD., 35 VOLT TANTALUM
D3.....	DS-97	DIODE, AM DET	C52.....	9349947	100 MFD., NON-POLAR
D4.....	DS-97	DIODE, AUDIO GATE	C54.....	7936365	1 MFD., 10 VOLT TANTALUM
D5.....	DS-97	DIODE, AUDIO GATE	C56.....	7936365	1 MFD., 10 VOLT TANTALUM
D6.....	DS-31	DIODE, TAPE AUDIO GATE	C59.....	7936359	3 MFD., 35 VOLT TANTALUM
D7.....	DS-31	DIODE, TAPE AUDIO GATE	C61.....	9349947	100 MFD., 16 VOLT NON-POLAR
D10.....	DS-159	DIODE, ZENER, 7 VOLT	C62.....	9349947	100 MFD., 16 VOLT NON-POLAR
D11.....	DS-97	DIODE, TACH. RECTIFIER	C64.....	7930782	1 MFD., 10 VOLT TANTALUM
D12.....	DS-79	DIODE, SPIKE SUPPRESSION	C66.....	7936365	1 MFD., 10V, TANTALUM
D13.....	DS-31	DIODE, AM RF DEFEAT	C69.....	7936359	3 MFD., 35 VOLT TANTALUM
D14.....	DS-97	DIODE, FM AGC	C75.....	9340269	40 MFD., 16 VOLT NON-POLAR
Q2.....	DS-105	TRANSISTOR, FM RF AMP., MOS FET	C82.....	7936748	.33 MFD., 35V TANTALUM
Q3.....	DS-94	TRANSISTOR, FM OSCILLATOR	C84.....	7936748	.33 MFD., 35V TANTALUM
Q7.....	DS-66	TRANSISTOR, AM BUFFER AMP	C85.....	7936748	.33 MFD., 35V TANTALUM
Q19.....	DS-83	TRANSISTOR, METER PRE-AMP	C86.....	7296137	200 PF, 100 VOLT, N750
Q20.....	DS-66	TRANSISTOR, MOTOR AMP	C89.....	7936360	10 MFD., 16V, TANTALUM
Q21.....	DS-513	TRANSISTOR, MOTOR CONTROL	C96.....	7936365	1 MFD., 10 VOLT TANTALUM
VC-1	DS-190	DIODE, FM ANTENNA VARICAP	C97.....	7936365	1 MFD., 10 VOLT TANTALUM
VC-2	DS-190	DIODE, FM RF VARICAP	C100.....	7895980	FM BY-PASS
I2.....	DS-410	INDICATOR, STEREO-LED	C112.....	7895980	FM BY-PASS
U1.....	DM-32	MODULE, ICAM	C113.....	7896282	FM BY-PASS
U2.....	DM-37	MODULE, ICBM, BALANCED MIXER	C118.....	7296348	3 MFD., 10 VOLT TANTALUM
U3.....	DM-51	MODULE, ICQD, QUAD. DET.	C119.....	7936365	1 MFD., 10 VOLT TANTALUM
U4.....	DM-44	MODULE, ICSD, STEREO DECODER	C121.....	7313127	2 MFD., 10 VOLT TANTALUM
U5.....	DM-59	MODULE, ICBA, BRIDGE AUDIO	C122.....	7313127	2 MFD., 10 VOLT TANTALUM
U6.....	DM-59	MODULE, ICBA, BRIDGE AUDIO	C127.....	9341036	390 PF, 100 VOLT, 2%
U8.....	*DM-56	MODULE, ICDA, DIGITAL/ANALOG	C160.....	*7898283	900 MFD., 16 VOLT NON-POLAR
U9.....	DM-45	MODULE, ICAP, AUDIO PROCESSOR	C181.....	7936361	15 MFD., 6 VOLT TANTALUM
U10.....	DM-33	MODULE, ICVR, VOLTAGE REG.	C182.....	7936361	15 MFD., 6 VOLT TANTALUM
U11.....	DM-40	MODULE, TAPE PRE-AMP	C187.....	7936674	100 MFD., 16 VOLT ELECTROLYTIC
			C200.....	9341267	1000 MFD., 16 VOLT ELECTROLYTIC
COILS & TRANSFORMERS			RESISTORS & CONTROLS		
CF-1.....	1223695	FM I.F., CERAMIC, (2/PKG.)	R1.....	9349079	CONTROL; VOLUME, TONE & SWITCH
CF-2.....	1223695	FM I.F., CERAMIC, (2/PKG.)	R80.....	9348417	CONTROL, ICDA CALIBRATION, 600 OHMS
L1.....	*7898352	COIL, AM ANT., RF, OSC.	R86.....	*7897739	RESISTOR, 4.3K, 2%
L2.....	7302543	CHOKE, A+ LINE FILTER	R90.....	9349022	CONTROL, PROCESSOR ADJ., 20K
L4.....	9348413	COIL, FM ANTENNA	R120.....	9349022	CONTROL, SEPARATION, 20K
L5.....	9348414	COIL, FM RF	R125.....	9349022	CONTROL, BALANCE, 200K
L6.....	*7897878	COIL, FM OSCILLATOR	R127.....	9349445	CONTROL, VCO ADJ., 5K
L7.....	7934553	CHOKE, FM RF	R128.....	9341039	RESISTOR, 21.5K, 2%
T1.....	9346544	TRANSFORMER, MIXER	R130.....	9348389	CONTROL, FADER
T4.....	9346543	COIL, PHASE	R191.....	9349371	CONTROL, MOTOR SPEED, 10K
T5.....	9349015	AM 1ST I.F.	TUNER & TAPE DECK		
T6.....	9349372	AM 2ND I.F.	SEE PARTS BREAKDOWN		
CAPACITORS			MISCELLANEOUS		
C3.....	9348419	TRIMMER, FM OSCILLATOR	70	1223670	BRACKET PKG., 11/PIN CONNECTOR
C4.....	9349556	TRIMMER, AM ANTENNA	J1.....	9340526	SOCKET, ANTENNA
C5.....	7936524	TRIMMER, AM RF	J5.....	1223668	CONNECTOR & LEAD ASM., 6/PIN, (TO FADER)
C6.....	7311368	TRIMMER, AM OSCILLATOR	J7.....	1223684	CONNECTOR PKG., 3 PCS. FOR BENCH HOOK-UP
C7.....	7936628	250 MFD, 16V, ELECTROLYTIC	P7	7896393	CONNECTOR ASM., INPUT 11/PIN
C8.....	7296348	3 MFD, 10V, ELECTROLYTIC	I1		LAMP, DIAL, NO. 216
C11.....	7298555	40 MFD., 6V, TANTALUM	I2.....	DS-410	STEREO IND.
C14.....	7896854	270 PF, N220 DISC CERAMIC	XL1	7898074	SOCKET & LEAD ASM., INCL. 11
C24.....	7936359	3 MFD., 35 VOLT TANTALUM	XL2	7895019	SOCKET, STEREO IND.
C30.....	9341540	4.7 PF., 100V, N330 TUBE CERAMIC	S2	*7898278	SWITCH AM/FM
C31.....	7897766	12 PF, 100V, N330 TUBULAR CERAMIC			
C32.....	7897740	18 PF, 100V, NPO TUBULAR CERAMIC			
C33.....	9341429	3.3 PF, 100V, N330 TUBULAR CERAMIC			

* PARTS FIRST USED IN THIS MODEL